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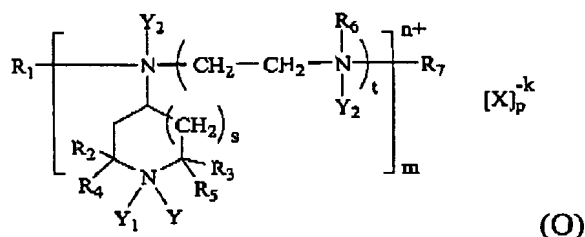
The Commissioner of Patents

Serial No. 10/532,138

CLAIM AMENDMENTS

A complete set of claims identifying amendments and with status identifiers is set out hereinafter.

1. (currently amended) A method for the production of light-stable and process-stable lignocellulosic materials material from a first lignocellulosic material, comprising the reaction of the first lignocellulosic materials material in an aqueous medium, in an alkaline peroxide bleaching medium, or in an aqueous medium with a subsequent bleaching of the materials reacted material in an alkaline peroxide bleaching medium, with a water-soluble, yellowing inhibitor or hindered amine light stabilizer possessing ~~two or more secondary and/or tertiary amine or ammonium, and/or quaternary ammonium groups~~ of the general formula (O):



wherein s is 0, ~~resulting in a 5-membered pyrrolidine ring~~, or 1, resulting in a 6-membered piperidine ring;

k is an integer of 1 to 5,

n is an integer of 0 to 5002 5;

m is an integer of 1 to ~~5~~ 1,

t is an integer of 1 ~~or more~~ 3;

p is an integer of 0 to 5002 5; provided that when n is 0, p is 0, then m is 1, and both ~~Y₁~~ and ~~Y₂~~ are absent;

X is an inorganic or organic anion;

Y is ~~oxyl (O⁻)~~, hydroxyl (OH), ~~or hydrogen (H)~~, and

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Y_1 is hydrogen or absent, provided that when Y_1 is hydrogen, Y is hydroxyl;

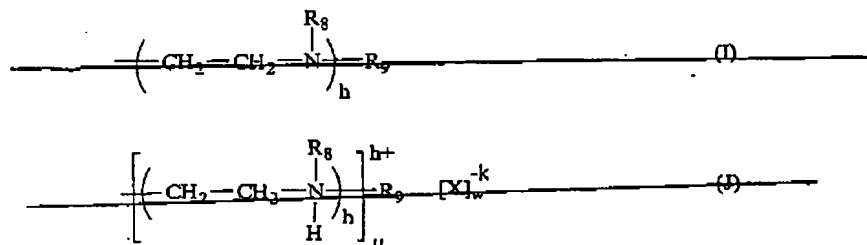
Y_2 is hydrogen or is absent, provided that when Y_2 is hydrogen, $n = t + 1$ or $t + 2$, and when Y_2 is absent, n is 0 or 1;

R_2 , R_3 , R_4 and R_5 are independently alkyl methyl groups (CH_3); ~~H unsubstituted or substituted by 1 to a $(2j+1)$ number of substituents, selected from hydroxyl, mercapto, lower alkoxy, lower alkylthio, benzyl, amino, lower alkyl ester, amide, carboxyl and carboxylate groups, or a radical derived from an organic ultraviolet absorber, and being uninterrupted or interrupted by 1 to j number of heteroatoms selected from O and S, wherein j is 1 to 14;~~

R_1 is hydrogen or an ethylene amino or ammonium group of formula (I) or (J);

when $t \geq 2$, R_6 is hydrogen; and R_7 are independently hydrogen, a radical (functional group) derived from an organic ultraviolet absorber, or is a radical (functional group) of the formula (K), (L), (M) or (N);

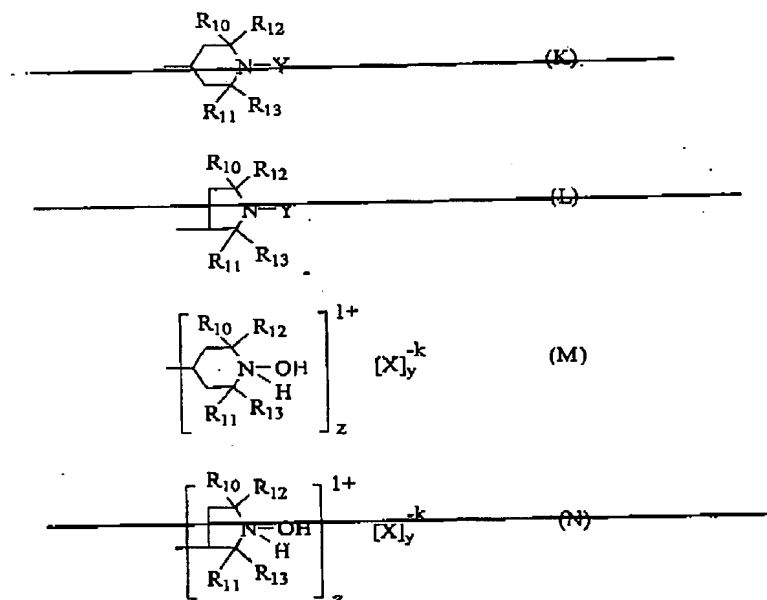
when $t = 1$, R_6 is hydrogen and R_7 is a radical (functional group) derived from an organic ultraviolet absorber, or a radical (functional group) of the formula (K), (L), (M) or (N);



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wherein $h \geq 1$;

X is the same as defined above;

k is 1 to 5 as defined above,

w is ≥ 1 ;u = 1 to 5, the total charge $kw = hu$ in formula (J);

R₃ and R₉ are independently hydrogen, a radical (functional group) derived from an organic ultraviolet absorber, or a radical (functional group) of the formula (K), (L), (M) or (N);

R₁₀, R₁₁, R₁₂ and R₁₃ are independently alkyl methyl groups (CH₃), H unsubstituted or substituted, by 1 to a (2i+1) number of substituents selected from, hydroxyl, mercapto, lower alkoxy, lower alkylthio, benzyl, amino, lower alkyl ester, amide, carboxyl and carboxylate groups, or radicals derived from an organic ultraviolet absorber; and being uninterrupted or interrupted by i heteroatoms selected from O and S, wherein i is 1 to 14;

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~~X is the same as defined above;~~~~k is 1 to 5;~~~~y is 1, and~~~~z is 1 to 5, the total charge $ky = z$ in formula (M) or (N);~~~~Y is oxyl (O⁻), hydroxyl (OH) or hydrogen (H), provided that: i) Y₂ is hydrogen or ii) Y₂ and Y₄ are both absent and Y is hydrogen.~~

2. (cancelled)

3. (currently amended) A method according to claim 2 1 wherein said first material is reacted with said yellowing inhibitor in said aqueous medium.4. (currently amended) A method according to claim 2 1 wherein said first material is reacted with said stabilizer in said alkaline peroxide bleaching medium.5. (currently amended) A method according to claim 2 1 wherein said first material is reacted with said stabilizer in an aqueous medium with a subsequent bleaching of the reacted material in said alkaline peroxide bleaching medium.

6. (previously presented) A method according to claim 1, wherein said lignocellulosic material is a wood pulp and including steps of forming a paper from the resulting pulp and coating the paper with an ultraviolet absorber.

7. (cancelled)

8. (previously presented) A method according to claim 1, wherein X is selected from carbonate, chloride, bisulfate, sulfate, formate, acetate, citrate, phosphate and ascorbate.

9. (cancelled)

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10. (previously presented) A method according to claim 1 wherein the yellowing inhibitor is N-(2,2,6,6-tetramethyl-1-hydroxyl-piperidin-4-yl)-N'-(2-[2-(2,2,6,6-tetramethyl-1-hydroxyl-piperidin-4-ylamino)-ethylamino]-ethyl)-ethane-1,2-diamine hexahydrochloride synthesized from the reductive amination of 4-oxo-2,2,6,6-tetramethylpiperidine-N-oxyl with triethylenetetramine in the presence of a reducing agent, followed by reaction with hydrochloric acid in ethanol.
11. (previously presented) A method according to claim 1, wherein the reaction of the lignocellulosic material is conducted with a charge of the yellowing inhibitor or hindered amine light stabilizer of 0.01% to 2.00%, by weight, based on the oven dry weight of the lignocellulosic material.
12. (original) A method according to claim 11 wherein said amount is 0.2% to 1.0%, by weight.
13. (previously presented) A method according to claim 1, wherein the reaction is conducted at a temperature of 20 – 120 °C, a consistency of 0.01% - 50%, and a time of 5 seconds to several hours.
14. (previously presented) A method according to claim 1, wherein the reaction in an aqueous medium is conducted at a pH of 3.5 – 12.5.
15. (previously presented) A method according to claim 1 wherein a reducing agent or an acid is added to the reaction medium.
16. (previously presented) A method according to claim 1, wherein the material is a pulp and the resulting pulp is treated with a reducing agent or an acid.
17. (previously presented) A method according to claim 1, wherein the reaction and/or bleaching is conducted in the presence or absence of air or oxygen.

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18. (previously presented) A method according to claim 1, wherein the lignocellulosic material is a mechanical wood pulp and the reaction is carried out in a single-stage or multi-stage in one or more than one refiner, bleach tower, pulp mixer, a storage vessel, or any other reaction vessel suitable for performing the alkaline hydrogen peroxide bleaching of the pulp.

19. (previously presented) A method according to claim 1, wherein the lignocellulosic material is wood chips and at least one of said reaction and bleaching is carried out in a single-stage or multi-stage in one or more than one impregnator.

20. (original) A method according to claim 19 wherein the impregnation of the wood chips is conducted at a temperature of 40 - 90 °C, a solid content of 30 - 60%, by weight, and an impregnation time of 5 minutes to 2 hours.

21. (previously presented) A method according to claim 1 wherein the lignocellulosic material is a wood pulp and the reaction of said yellowing inhibitor with the pulp is carried out in an agitated tank or any other stock preparation vessels of a paper machine.

22. (cancelled)

23. (cancelled)

24. (cancelled)

25. (cancelled)

26. (cancelled)

27. (cancelled)

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28. (cancelled)

29. (cancelled)

30. (cancelled)

31. (cancelled)

32. (previously presented) A method according to claim 1, wherein said reaction is with said water soluble, yellowing inhibitor, and said inhibitor is N-(2,2,6,6-tetramethyl-1-hydroxyl-piperidin-4-yl)-N'-{2-[2-(2,2,6,6-tetramethyl-1-hydroxyl-piperidin-4-ylamino)-ethylamino]-ethyl}-ethane-1,2-diamine hexahydrochloride.

33. (new) A method for the production of light-stable and process-stable lignocellulosic material from a first lignocellulosic material comprising the reaction of the first lignocellulosic material in an aqueous medium, in an alkaline peroxide bleaching medium, or in an aqueous medium with a subsequent bleaching of said first material in an alkaline peroxide bleaching medium, with a water-soluble, yellowing inhibitor or hindered amine light stabilizer of a hexa-cation of N-(2,2,6,6-tetramethyl-1-hydroxyl-piperidin-4-yl)-N'-{2-[2-(2,2,6,6-tetramethyl-1-hydroxyl-piperidin-4-ylamino)-ethylamino]-ethyl}-ethane-1,2-diamine with an inorganic or organic anion.

34. (new) A method according to claim 33, wherein X is selected from carbonate, chloride, bisulfate, sulfate, formate, acetate, citrate, phosphate and ascorbate.

35. (new) A method according to claim 34, wherein the reaction of the lignocellulosic material is conducted with a charge of the yellowing inhibitor or hindered amine light stabilizer of 0.01% to 2.00%, by weight, based on the oven dry weight of the lignocellulosic material.

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36. (new) A method according to claim 35, wherein the reaction is conducted at a temperature of 20 – 120 °C, a consistency of 0.01% - 50%, and a time of 5 seconds to several hours.

37. (new) A method according to claim 36, wherein the reaction in an aqueous medium is conducted at a pH of 3.5 – 12.5.